

Applicant: Timothy Anderson

Serial No.: 09/845,679

Filed: April 30, 2001

For: ROLL-UP DOOR ASSEMBLY

PRELIMINARY AMENDMENT

Assistant Commissioner for Patents Washington, D. C. 20231

Sir:

Kindly amend the above-identified Nonprovisional Patent Application as set forth below.

IN THE SPECIFICATION

Kindly make the following changes to the specification:

On Page 6, lines 17 - 20, delete "FIGURE 1; and FIGURE 7D is an exploded detail view of the opener mechanism relative to one of the pair of opposing sidebars enabling the roll-up door cover of FIGURE 1 to pivot from a rolled-up position to the fully-extended position;" and replace it with -FIGURE 1. --

On Page 7, line 21, delete "edges 36" and replace it with "edges 31".

On Page 10, line 23, delete "member 64." And replace it with --member (not shown).—

On Page 10, line 24, delete "64".

IN THE DRAWINGS:

Changes have been made to FIGURES 4, and 7A, as shown in red ink.

REMARKS

Enclosed are copies of amended pages 6, 7, and 10 of the specification as filed - a marked-up copy (as amended); and a clean copy (as amended) of each. The undersigned has removed the reference in the Patent Application to FIGURE 7D. Also, minor changes of a clerical nature are being made to the specification and drawings. No new matter has been added as a result of these changes.

January 16th, 2002

Respectfully submitted,

Gerald R. Black, Esq. Registration Number 29,514

30590 Southfield Road, Suite 160

Southfield, Michigan 48076 Phone: (248) 644-1014

Fax: (248) 647-0568

PAGE 6 Marked-up Copy

assembly <u>with opener mechanism</u> being in a position between the rolled-up position and the rolled-down position;

FIGURE 4 is an exploded detail view of the upper portion of the roll-up door assembly of the present invention as shown in FIGURE 2, and includes a first preferred embodiment of a retainer mechanism;

FIGURE 5 is an exploded detail view of the lower portion of the roll-up door assembly of the present invention as shown in FIGURE 2, and includes a first preferred embodiment of a latch mechanism;

FIGURE 6 is a front assembly view of the door cover of FIGURE 1;

FIGURE 7A is an exploded detail view of the roll-up window opening cover of the door cover of FIGURE 6;

FIGURE 7B is an exploded detail view of a second preferred embodiment of the retainer mechanism disposed relative to the cross member of the elongated entryway of the door frame assembly of FIGURE 1;

FIGURE 7C is an exploded detail view of a second preferred embodiment of the latch mechanism disposed on one of the side members of the elongated entryway of the door frame assembly of <u>FIGURE 1</u>. [FIGURE 1; and

FIGURE 7D is an exploded detail view of the opener mechanism relative to one of the pair of opposing sidebars enabling the roll-up door cover of FIGURE 1 to pivot from a rolled-up position to the fully-extended position;]

DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENTS

Referring now to the drawings, while the fixed building structure can be a porch, a shed, an airplane hanger, or the like, for purposes of illustration

PAGE 6 Clean Copy

assembly with opener mechanism being in a position between the rolled-up position and the rolled-down position;

FIGURE 4 is an exploded detail view of the upper portion of the roll-up door assembly of the present invention as shown in FIGURE 2, and includes a first preferred embodiment of a retainer mechanism;

FIGURE 5 is an exploded detail view of the lower portion of the roll-up door assembly of the present invention as shown in FIGURE 2, and includes a first preferred embodiment of a latch mechanism;

FIGURE 6 is a front assembly view of the door cover of FIGURE 1;

FIGURE 7A is an exploded detail view of the roll-up window opening cover of the door cover of FIGURE 6;

FIGURE 7B is an exploded detail view of a second preferred embodiment of the retainer mechanism disposed relative to the cross member of the elongated entryway of the door frame assembly of FIGURE 1;

FIGURE 7C is an exploded detail view of a second preferred embodiment of the latch mechanism disposed on one of the side members of the elongated entryway of the door frame assembly of FIGURE 1.

DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENTS

Referring now to the drawings, while the fixed building structure can be a porch, a shed, an airplane hanger, or the like, for purposes of illustration

Page 7 Marked-up Copy

herein the fixed building structure is depicted as a conventional garage as shown in FIGURE 1.

FIGURE 2 is an assembly view of the preferred embodiment of the roll-up door assembly 10 of the present invention is shown. The roll-up door assembly 10 comprises a frame structure 20, a door cover 30, and an opener mechanism 60 that is adaptable for attachment onto the outer frame 12 surrounding an entryway 14 of a fixed building structure 16. When applied to a conventional garage, the assembly of the present invention is positioned onto the outside of the garage and is fully compatible with both conventional automatic and manual garage doors 18.

The preferred embodiment of the door cover 30 of the present invention is shown in FIGURE 6. The door cover 30 is made of a heavy duty, canvas-type material and disposed about a roller 32, about which the door cover is rolled. The door cover is made from a multi-layered tarp material with good insulation properties as the trapped air between the layers enhances the insulation properties. The fabric material is waterproof so that it can be left in the fully-extended position for long periods of time without concern for damage from the elements. The door cover 30 is closed in the fully-extended position and is open in the rolled-up position. One end of the rollable door cover 30 is secured to a member of the frame structure 20 that is substantially parallel to the roller 32. The vertical side edges 31 [36] of the inner surface of the door cover 30 when in the fully-extended position include means such as a two-inch Velcro® strip for securing side portions of the fabric material to opposing side members 24 and 25 of the frame of the entryway 14 to seal the door cover 30 and keep out unwanted debris and such.

The door cover 30 of the present invention has at least one window opening 38 covered by a screen-type material disposed therewithin, such as fiber-glass screening, and preferably three or more window openings 38. The screen-type material enables ventilation throughout the entryway 14 while keeping out

Page 7 Clean Copy

herein the fixed building structure is depicted as a conventional garage as shown in FIGURE 1.

FIGURE 2 is an assembly view of the preferred embodiment of the roll-up door assembly 10 of the present invention is shown. The roll-up door assembly 10 comprises a frame structure 20, a door cover 30, and an opener mechanism 60 that is adaptable for attachment onto the outer frame 12 surrounding an entryway 14 of a fixed building structure 16. When applied to a conventional garage, the assembly of the present invention is positioned onto the outside of the garage and is fully compatible with both conventional automatic and manual garage doors 18.

The preferred embodiment of the door cover 30 of the present invention is shown in FIGURE 6. The door cover 30 is made of a heavy duty, canvas-type material and disposed about a roller 32, about which the door cover is rolled. The door cover is made from a multi-layered tarp material with good insulation properties as the trapped air between the layers enhances the insulation properties. The fabric material is waterproof so that it can be left in the fully-extended position for long periods of time without concern for damage from the elements. The door cover 30 is closed in the fully-extended position and is open in the rolled-up position. One end of the rollable door cover 30 is secured to a member of the frame structure 20 that is substantially parallel to the roller 32. The vertical side edges 36 of the inner surface of the door cover 30 when in the fully-extended position include means such as a two-inch Velcro® strip for securing side portions of the fabric material to opposing side members 24 and 25 of the frame of the entryway 14 to seal the door cover 30 and keep out unwanted debris and such.

The door cover 30 of the present invention has at least one window opening 38 covered by a screen-type material disposed therewithin, such as fiber-glass screening, and preferably three or more window openings 38. The screen-type material enables ventilation throughout the entryway 14 while keeping out

Page 10 Marked-Up Copy

the present invention, the latch mechanism 80' being disposed proximate to the lowermost end of one or both of the side members 24 and 25. The latch mechanism 80' enables secure retention of the door cover 30 when the door cover 30 is in the fully-extended position. The latch mechanism 80' includes a sliding plate 82 disposed within a groove 84 in the side member 24 or 25. The sliding plate 82 includes a lock-nut 86 that is manually released enabling the sliding plate 82 to fit into a notch 88 in the protruding flange extension disposed on the bottom surface of the side member 24 or 25 to securely retain the door cover 30 within a C-shaped recess 89 in the side member when the door cover 30 is in the fully-extended position. To close the door cover 30, the plate 82 is raised and the door opener mechanism 60 is activated.

The opener mechanism 60 of the present invention comprises a roller 32 disposed between a pair of opposing sidebars 62. Each sidebar 62 is secured to one of the side members 24 and 25 as shown in FIGURE 3. The opener mechanism 60 enables the door cover 30 to be rotatably repositioned similar to the way that an awning is disposed relative to a residential window. The sidebar extensions 65 cooperatively engage a toothed knob, thereby enabling the roller 40 to be swung in an outward manner and away from the frame structure 20, generally through a 180 degree arc from the raised position to the lowered position and back again. Each sidebar 62 is preferably made of aluminum and is secured one of the side member 24 or 25 by the extensions 65. The extensions 65 are substantially parallel to the roller 32. Each sidebar extension 65 includes a spring-tension member (not_shown)[64]. The spring-tension member [64] enables the roller 32 to be in a relaxed state when in the raised position and in tension when in the lowered position. The opener mechanism 60 of the present invention is either manually operated or motor controlled.

Another embodiment has the roll-up door assembly 10' comprises the door cover 30 and the opener mechanism 60 disposed relative to an existing frame structure 20. The opener mechanism is mounted onto the side members 24 and 25 of the elongated entryway 14. A roller 32 and opener mechanism 60 are

Page 10 Clean Copy

the present invention, the latch mechanism 80' being disposed proximate to the lowermost end of one or both of the side members 24 and 25. The latch mechanism 80' enables secure retention of the door cover 30 when the door cover 30 is in the fully-extended position. The latch mechanism 80' includes a sliding plate 82 disposed within a groove 84 in the side member 24 or 25. The sliding plate 82 includes a lock-nut 86 that is manually released enabling the sliding plate 82 to fit into a notch 88 in the protruding flange extension disposed on the bottom surface of the side member 24 or 25 to securely retain the door cover 30 within a C-shaped recess 89 in the side member when the door cover 30 is in the fully-extended position. To close the door cover 30, the plate 82 is raised and the door opener mechanism 60 is activated.

disposed between a pair of opposing sidebars 62. Each sidebar 62 is secured to one of the side members 24 and 25 as shown in FIGURE 3. The opener mechanism 60 enables the door cover 30 to be rotatably repositioned similar to the way that an awning is disposed relative to a residential window. The sidebar extensions 65 cooperatively engage a toothed knob, thereby enabling the roller 40 to be swung in an outward manner and away from the frame structure 20, generally through a 180 degree arc from the raised position to the lowered position and back again. Each sidebar 62 is preferably made of aluminum and is secured one of the side member 24 or 25 by the extensions 65. The extensions 65 are substantially parallel to the roller 32. Each sidebar extension 65 includes a spring-tension member (not shown). The spring-tension member enables the roller 32 to be in a relaxed state when in the raised position and in tension when in the lowered position. The opener mechanism 60 of the present invention is either manually operated or motor controlled.

Another embodiment has the roil-up door assembly 10' comprises the door cover 30 and the opener mechanism 60 disposed relative to an existing frame structure 20. The opener mechanism is mounted onto the side members 24 and 25 of the elongated entryway 14. A roller 32 and opener mechanism 60 are